

Commodore International

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USA News

Commodore CDTV™ is the Star of Winter CES Show

Commodore International announced the worldwide launch of the CDTV Player - the industry's first compact disc-based consumer Interactive Multimedia player - at a news conference at the Winter Consumer Electronics Show (CES) in Las Vegas in January. It was the hit of the show.

The CDTV Player is now available through certain quality audio/video specialty retailers, select upscale retail chains, department stores and select software outlets in U.S. markets and in the U.K. around the first calendar quarter of 1991. Commodore plans to support this effort with a comprehensive advertising, public relations and promotional program.

In the U.S., the CDTV Player is being introduced in New York, Los Angeles, Chicago, San Francisco, Dallas and Denver through such major retailers as Montgomery Ward, Video Concepts, McDuff and Software Etc. In the U.K., the CDTV Player is planned to be introduced through Dixons



Commodore CDTV

and other dealers. Distribution is then planned to expand to additional markets in the U.S., Canada and Europe.

Commodore also announced that more CDTV applications were in the works from new developers and publishers such as Disney Software, Grolier, LucasFilm, Guinness, Psygnosis, Cinemaware, Accolade and Music Sales. These companies join some of the world's

most prestigious developers, including Spectrum Holobyte, Merit, Icom Simulations, Xiphias, Applied Optical Media, Virgin, Mirrorsoft, Tiger Media, Free Spirit, Interplay and Discis, all of which have titles in development. Commodore had approximately 30 titles at launch, with more than 100 planned by year-end.

The suggested retail price of the CDTV Player is \$999 (U.S.) with the suggested retail of CDTV titles expected to range from \$30 - \$100 (U.S.) with the average price of \$50.

Commodore chairman and CEO Irving Gould and Nolan Bushnell, spokesman for Commodore's Consumer Interactive Products division, made comments at the news conference. Gail Wellington, Commodore Director of Special Projects, demonstrated production models of the CDTV Player and titles. A pre-production model was first previewed publicly to the trade at the Summer CES in mid-1990.

Advanced Performance in a Simple Package

The CDTV Player brings advanced Interactive Multimedia performance in a package that has been designed to be as simple to use as changing TV channels with a remote control. The sleek black player looks like a VCR or CD-

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The Next Generation of Consumer Electronics

This represents a breakthrough on two fronts, according to Nolan Bushnell of Commodore.

"The CDTV™ Player is a smart, easy-to-use, next generation home component, offering computing power without complexity," he said. "It also is the next generation in CD development, combining audio and graphic *AND* video and text, creating a totally new medium. Consumers have been waiting for years for a product which has the functionality, flexibility and power of CDTV."

Bushnell said he expects market penetration and acceptance to follow patterns similar to the VCR and CD player. Like early VCR and CD users, initial CDTV consumers are expected to be "early adopters" who are technologically proficient, own advanced audio/video entertainment systems, own or use personal computers and readily embrace new technologies.

Titles for children and adults as well as enjoyment for the whole family will comprise a major share of the CDTV library. Introductory titles fall into five basic categories: *Arts & Leisure, Education, Entertainment, Music and Reference*. Electronic games will be significantly more sophisticated in play, sound and graphics than on any current home computer or video game format. "We anticipate that Interactive Multimedia titles will become a multi-billion dollar business within five years, rivaling the PC software and video game software industries," Bushnell added.

Commodore has engineered the product to meet long-term needs through open architecture



Father and daughter share a moment of excitement with CDTV

that enables easy modification and upgrade. Commodore plans to make the CDTV Player compatible with the Moving Picture Expert group (MPEG) full-screen, full-motion standard. The players also supports all CD-Audio discs and the music industry's new CD+Graphics (CD+G) format. CDTV is compatible with NTSC, Super-NTSC and PAL television sets, as well as monitors. A wide range of peripheral products, such as an optional infrared computer keyboard, brick/trackball with joystick ports, video genlocking card, and a 3.5" floppy disk drive, are expected to be available as well.

FORTUNE MAGAZINE Says "Most Fascinating Idea of 1991."

A photograph of the CDTV Player was featured in FORTUNE MAGAZINE's "Most Fascinating Ideas for 1991" section on page 35 of the January 14, 1991 issue.

Plus One Quote from COMPUTING NOW.

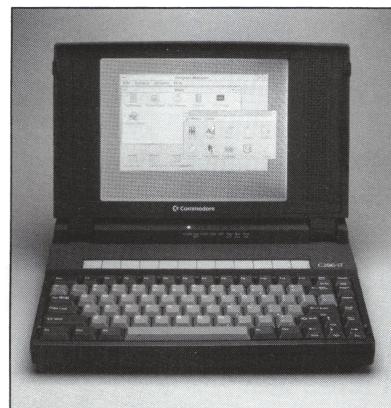
"If any company can make a concept like CDTV fly, Commodore should be the one."



Amiga 500C and 286 Laptop Spur Consumer Division Success at CES

Six months after Commodore Business Machines, Inc. (U.S.A.) re-launched its consumer division, the company is registering successes with its revamped Amiga 500C and its new C286 notebook-size laptop computer. Since the summer '90 launch of the Amiga 500C, the company has added several hundred retail locations, including Electric Avenue of Montgomery Ward, Macys of California and others. Commodore also has solidified its customer service commitment with the addition of CommodoreExpress™, a toll-free, 24-hour helpline, in conjunction with Federal Express.

Bob Larson, Commodore's Vice President, Consumer Division, in a statement released at the Winter Consumer Electronic show in Las Vegas, said; "The success of the 500C indicates the Amiga is a proven mainstream product. We believed the industry and the pub-



C286 Laptop



Amiga 500C

lic were ready for a full-featured entry level home computer if we could meet three standards: (1) the right price; (2) an easy-to-use system; and (3) an unbeatable service commitment. The success of this strategy is now paying off in terms of customer response and the interest expressed by high quality prospective retailers."

One of those successes is at Montgomery Ward where the

Amiga 500C became the computer favorite during the Christmas holiday buying season. Jim Smith, computer buyer at Montgomery Ward, said; "At less than \$500, the 500C fills an important niche for us and our customers responded enthusiastically. It's a machine that sells itself. We believe that in these economic times, the \$500 entry level price will continue to be important."

plete with an RF modulator (which connects the computer to the TV set) and some of the most popular software available, including "Tetris" and "Where in the World is Carmen Sandiego." Larsen said the company will soon announce software enhancements to the 500C package which will leverage the specific application needs of the Amiga 500's installed base.

Commodore also successfully launched its first laptop in the U.S.A. The sleek, price-performance leading PC compati-

ble C286-LT is bundled with Windows 3.0, weighs only seven pounds, fits in a briefcase and comes with a carrying case. After selling out in its initial distribution, it is now available at Montgomery Ward, and is also covered by CommodoreExpress.

CommodoreExpress was cited by *Fortune Magazine* in the January 14, 1991 issue, as one of "The most Fascinating Ideas for 1991," enabling Commodore better service at half the previous cost."

A Target of 16 Million Video Game Owners

The 512K, 16-Bit, Motorola 68000-based Amiga 500C, which pioneered affordable multimedia, is targeted to the 16 million American families who own video game machines but not computers. *United Feature Syndicate* called it "the best home computer available." *Consumer Digest* rated it a "best buy." *Camcorder* said the Amiga "is way ahead of all the others when it comes to low price and the quantity of software available." The 500C comes com-



CDTV News

Commodore Announces Initial CDTV Applications Library

Commodore has announced a library of more than 35 planned multimedia titles which will play on Commodore's CDTV interactive Compact Disc system at product introduction in the first half of 1991. The library, which includes titles in numerous educational and entertainment categories, will bring new levels of interactivity and enjoyment into the home environment.

The titles play on the CDTV Player which is similar in appearance to a VCR or CD player and is suitable for the living room or den. The CDTV player is also compatible with the more than 30 CD+G (Compact Disc Plus Graphics) music discs available, as well as all standard audio Compact Discs.

An Interactive Bible and an Encyclopedia

The CDTV library provides consumers with a comprehensive selection of topics, including reference, education, children's, women's, sports and leisure, self-improvement, adventure and simulations. The titles range from interactive versions of the King James Bible and the World Vista Atlas to entertainment titles such as "Battle Chess," "Sim City," and "Sword of Excalibur."

"The challenge facing the consumer electronics industry is providing content, not just advanced technology," said a spokesman for Commodore. "CDTV enables consumers to experience sound, images and text in ways that are not possible in the separate worlds of audio, video and computing.

CDTV represents an innovative advance in technology and capability over any commercially available entertainment format, combining audio, video, graphics and computer interactivity into a single, compact disc-based system. The storage capacity of the compact disc is enormous - the equivalent of more than 250,000 pages of typewritten text. For example, the complete *American Heritage Encyclopedic Dictionary*, fully illustrated, will fit on a single disc.

This storage capacity enables developers to engineer products which combine unparalleled levels of interactivity with vivid graphics and CD sound. "CDTV is more than a new product, it represents a dramatic shift in the way we receive and use information, are educated and entertained."

According to Commodore, the key is interactivity and immediate access. For example, the recipes in the CDTV version of the popular *Silver Palate* cookbook series (to be retailed as "New Basics Electronic Cookbook" by Xiphias, provide the cook with step-by-step instructions, alternate seasonings, realistic "mouth-watering" images of the meal in progress, and the ability to recalculate portion sizes instantly. If the cook is planning a dinner party for 10 and then decides to invite two more guests, the program will adjust the ingredient amounts and cooking time accordingly. In addition, the program will "suggest" menus based on whatever combinations of ingredients happen to be in the house at mealtime, as well as direct the cook to low-sodium or low-cholesterol recipes if desired.

First Original Game for CD Disc

Tiger Media's "Airway Adventure -- The Case of the Cautious Condor," is an original entertainment title developed specifically for multimedia compact disc. It's an adult murder/mystery set in the 1930's, where the "player" has 20 minutes and 1500 possible paths to search rooms and interview characters in order to solve who had the means, motive and opportunity to "do the deed."

Discis has developed a variety of children's stories, including "Cinderella" and "The Tale of Peter Rabbit," featuring the author's original illustrations and text, with added music and sound effects. The user has the option of hearing real human speech present the text verbally with the words highlighted in phrase groups common to normal speech and speaking patterns. In addition, the user can point the remote control and click on a specific word and have it pronounced for them, click again for a definition, and again to have the word said in an alternate language (i.e. Spanish) if desired.

The Software Industry Gets Behind Commodore CDTV

These first 35 titles represent just about the beginning of the development of the CDTV library. The company and other developers plan to introduce additional titles on a regular basis, including "Murder Anyone?", "North Polar Expedition" and "Family Medical Advisor," among others. Many of the world's premier applications developers such as LucasFilm, Accolade, Cinemaware, Sierra-online, Virgin Mastertronic and Spectrum Holobyte have products in development for CDTV.



CDTV News

Music Maker for Interactive Music

Music Sales, Ltd., the music publisher has created *Music Maker* featuring 17 exclusive digital audio arrangements of well-known songs. Rather than just for listening, *Music Maker* allows the user to participate by playing along even if he has no musical training. The user can tap out the rhythm by remote control or improvise at will without ever playing a wrong note.

Commodore also identified several companies as meriting special at-

tention because they illustrate the breadth of support and diversity of CDTV applications.

LucasFilm is scheduled to contribute three titles: *Indiana Jones*, *Loom* and their new graphic adventure, *The Secret of Monkey Island*. Accolade is planning a special golf simulation featuring "The Golfer of the Century," Jack Nicklaus, who will challenge CDTV golfers on one of his most famous courses, Muirfield Village, accurately recreated from 8,000 digital photographs of the actual course. Cinemaware is producing

a special pro football game, where play is augmented by real coaching opportunities. The user will be able to test offensive strategies against various types of defense, select players based on opponents' strengths and weaknesses and develop their own playbook. On gameday, *TV Sports Football's* realism will include sideline interviews, instant replay and cheering grounds. Psygnosis is developing enhanced graphic techniques for their arcade games superior to their *Shadow of the Beast* series.

Preliminary CDTV Titles for 1991 Launch Show a Wide Range of Interest

TITLE	DEVELOPER	TITLE	DEVELOPER
Home Reference:		Education:	
King James Bible	Animated Pixels	North Polar Expedition	Virgin Mastertronic
World Vista Atlas	Applied Optical Media	Fun School (3 discs for different age groups)	Mandarin
The American Heritage Encyclopedic Dictionary	Xiphias	A Bun for Barney	Multimedia Corp.
Dr. Wellman, Family Medical Advisor	Digita	Barney Bear Goes to School	Free Spirit
Time Table of Science & Innovation	Xiphias	McGee	Lawrence Productions
Time Table of Business & Politics	Xiphias	Our House	Context
Illustrated Works of Shakespeare	Animated Pixels	Hallo Freunde! German for Beginners	Illiad
Japan World	TopClass Tech	Thinking Games:	
Advanced Military Systems	Dominion	Sherlock Holmes, Consulting Detective	Icom Simulations
Children's Classics:	Discis	Battle Chess	Interplay
Cinderella	Discis	Airway Adventure - - The Case of the Cautious Condor	Tiger Media
Tale of Peter Rabbit	Discis	Defense of the Crown	Cinemaware
Scary Poems for Rotten Kids	Discis	Classic Board Games	Merit Software
Children's Stories:		Many Roads to Murder	Vent
A Long Hard Day at the Ranch	Discis	Murder Anyone?	Vent
Moving Gives Me a Stomach Ache	Discis	Dominion	Dominion
The Paper Bag Princess	Discis	Adventure and Arcade Games:	
Children's Fun:		Thexder	Sierra-on-line
Animated Coloring Book	Gold Disk	Excalibur	Virgin Mastertronic
All Dogs Go to Heaven (Electric Crayon)	Merit Software	Space Quest III	Sierra-on-line
Snoopy	The Edge	Pacmania	Domark
Leisure:		Future Wars	Interplay
Gardenfax - Gardenplants	Intersearch	Xenon II	Mirrosoft
Gardenfax - Housepalnts	Intersearch		
Silver Palate Cookbook	Xiphias		
Music Maker	Music Sales	Simulation Games:	
		Sim City	Maxis
		Falcon	Spectrum Holobyte

The titles are subject to change without notice.



Amiga News

Commodore Sells Two Millionth Amiga

Commodore International Ltd. announced at The Canadian World of Commodore Show that it had reached an important milestone by selling the 2 millionth Amiga computer. The Amiga (introduced in 1985) reached the millionth mark early last year and sales have increased dramatically over the past year, doubling in 1990 to reach the 2 million level. This firmly establishes the Amiga as one of the world's leading computer standards.

The innovative Amiga technology integrates digital sound, animation and video compatibility. The AmigaVision™ interactive authoring system is sold with Amiga computers and facilitates the combination of sound, text, graphics, animation and video into an effective presentation display.

The Amiga has been hailed as the leader in multimedia technology. *Byte Magazine* referred to the Amiga 3000 as "an impressive machine - the most capable multimedia you can get in a single box," while *Computer Reseller News* noted that the introduction of the Amiga 3000 "the future of desktop multimedia took a leap forward."

For the third consecutive year, the Amiga 500 has been named "Home Computer of the Year" in Germany by a group of computer journalists headed by the leading German computer publication *Chip*.

The Amiga computer family consists of the Amiga 500 aimed at the consumer, work-at-home and education markets, and the Amiga 2000 and 3000 series, targeted for the professional multimedia user. The Amiga 500 offers the benefits of Amiga multimedia technology at a highly attractive price for the consumer market.

A Letter from the President of the Amiga Developers Association

The Amiga Developers Association is an important association to all those concerned in the development, use and sale of Commodore Amiga hardware and software. Here in Commodore International News we present a recent letter sent to the press by the President of the Association, Michael Halvorson which outlines much of the excellent work they have been undertaking in the last year.

In March, 1990, the Amiga Developer's Association set out to develop a structure that would encompass many different developers and opinions. Now, as the ADA gets ready to elect its second set of officers and its board of directors, it is incumbent upon us to review the goals initially set forth and to analyze the results of our efforts.

Among our initial objectives was the creation of an environment wherein Commodore and the Amiga development community could better communicate. In the past several months, we have seen a direct increase in communications with CBM. Commodore Applications and Technical Support (CATS) for instance, is now taking an active role in helping developers learn more about doing business in the computer industry.

Another goal was to establish good communications between vendors and users. Through the efforts of the board, the PLINK network has set up the ADA Zone and offered ADA members reduced rates, of which many have taken advantage. The ADA has been heard on many other fronts as well. AmiExpo, for example, enlisted the ADA to deliver keynote speeches at two recent trade shows. As a result of this exposure, many new members have joined the Association.

Lately, the ADA has begun to take very aggressive action against software thieves. Several pirating bulletin-board systems have been closed down, and an investigation is underway concerning an organization that has apparently been selling software illegally. The dues of ADA members have paid for this and other investigations.

Finally, through the lobbying efforts of several ADA members, coverage of the Amiga by media sources other than Commodore and Amiga-centered publication has increased dramatically. This alone has been worth the development of the ADA.

Of course, there is always room for improvements and increased effectiveness. It is our sincere hope that the board and officers about to be elected will carry on and improve the foundation we have set. The future of the Amiga depends entirely on the development community and is as bright as we wish to make it.

- Michael Halvorson
ADA President

A Short Note from the Growing CAD Software on Amiga

This is what *Amazing Computing Magazine* had to say recently about the market for CAD software on the Amiga.

"The market for Amiga CAD software is really heating up nicely these days. The Bandito is pleased to see several high-powered programs on the market. Now if Commodore can take that 1200 x 800 pixel monitor out of the labs and bring it to market, we'd really see some drafting action."



Amiga News

Commodore Announces Amiga 3000 UX™,UNIX® Workstation - Implementing the new AT&T® UNIX System V Release 4®

Commodore Business Machines, Inc. (U.S.A.) has announced the new AT&T UNIX System V Release 4. The Amiga 3000 UX provides the power of a Motorola processor to drive UNIX SVR4, plus the X Window System™ and Open Look™ Graphical User Interface which is included in every pre-loaded system.

The implementation of the UNIX SVR4 by Commodore is due to the fact it is the only truly open standard. Not only is it the standard, but it is the state-of-the-art standard in terms of functionality and deliverability.

"The Amiga 3000 UX with Release 4 is not just a clone running a proprietary implementation. It is a no-nonsense workstation."

A Letter from an Amiga Fan

Following is a recent letter from an Amiga user to Amazing Computing Magazine and we thank him for his support:

"Dear CNN:

It's Spelled: A - M - I - G - A !

I love your comments and features. Keep up the good work!

On December 3, I spotted the Amiga on cable TV in the CNN Headline News and CNN News. The latter featured a story on the "Students for a Free Kuwait" in Pomona, California, a cable TV show using Amigas for its production, foreign news gathering and overseas faxes. The Amigas were shown, but (there was) no mention of the name.

tion running an advanced industry standard UNIX SVR4 that is more impressive and compact," said Paul Calkin, Manager of UNIX Programs for Commodore.

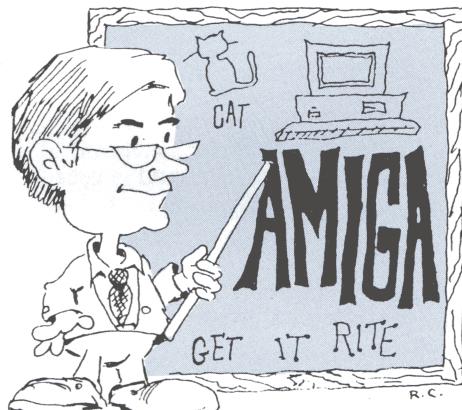
Ideal for individuals or work-group applications, the Amiga 3000 UX is compliant with industry standards such as Ethernet™, NFS™ and TCP/IP. The system offers options of color or monochrome displays, with RAM expansion to 18 MB on the motherboard, multi-format compatible floppy disk drive, with both internal and external disk capacity.

Peter Cunningham, President and CEO of UNIX International, a non-profit open industry trade consortium dedicated to the future direction of the UNIX operating system environment commented on the Amiga 3000 UX release saying, "We are extremely pleased with Commodore's decision to release the Amiga 3000 UX with

UNIX System V Release 4. It is certainly a benefit for the many users of Commodore computers. It gives them the opportunity to enter the world of open systems. This move also demonstrates the vitality of Commodore's management and reaffirms the fact that UNIX System V is the operating system of the future."

Along with the full power of standard UNIX SVR4, the Amiga 3000 UX system also comes with a second operating system, AmigaDOS. AmigaDOS is a real time, single user operating system especially suited for use in video and multimedia applications, as shipped on over 2.0 million Amiga computers worldwide.

Commodore continues to expand its commitment of providing desk-top computing to the business, education, government and professional markets with the introduction of its UNIX line.



On CNN Headline News' "Science and Technology Today," the Atlanta Olympics presentation was given a lavish four-minute review in virtually every aspect. It was an excellent display on the graphics, user interface and features of the system. Ruefully, when they broke down the hardware system, they reported "...utilizing CD-ROM and two

computer systems..." in a nameless generic reference without mention of Amiga proper. My bitter beef is that any regular viewer of CNN knows their reporters, primarily all MAC users on the news set, go out of their way to mention the technology, education or health features, but Amiga, even when starkly viewed, is given mute reference. Is this a simple neglect or overt favoritism or outright contempt for the Amiga?

I am sending CNN a letter of complaint, and I hope fellow users on Amiga bulletin boards follow suit."

Thank You
James W. Greenidge
Jamaica, New York



Amiga News

Newtek's Video Toaster Hailed by Industry as a Major Advance

The Video Toaster hardware/software package now being delivered by Newtek is being hailed by industry pundits as one of the products of the year. The Video Toaster turns the Amiga into a sophisticated, broadcasting quality video editing system. *BYTE* magazine has called it "One of the coolest video graphics products of the year." *VIDEO* magazine picked it as one of its "products of the year." The Bahamian Computer Show called it "the incredible video tool with over 16 million colors and digital special effects." *AMAZING COMPUTING* also said, "Early reviews from Toaster users are positive. One of the more famous Toastees is musician Todd Rundgren, who is using Video Toaster and several Amigas to produce his latest music video. Amiga 3-D superstar Allen Hastings is working with Rundgren to provide one of his amazing animations to be used in the video. Apparently, Rundgren has been converted from a Macintosh fan into a Toaster fanatic. And he won't likely to be the last one, either."

A Complete Video Editing System

Newtek's hardware / software package turns the Amiga into a sophisticated, broadcast-quality video-editing system. Video Toaster provides tools for real-time manipulation of incoming live video, including a frame grabber; a color processing engine for producing color negatives, effects such as solarization and posterization, and color filters; dual frame buffers for rendering three-dimensional images; 24-bit animation software; 24-bit paint software; a character generator for putting text on top of video frames; a production switcher to handle transitional effects; and more.

Thanks to its four custom chips, NewTek has packed all these studio facilities into one add-on board. All the computerized imagery and digital effects you see on TV can be done with this package. Turning a personal computer into a workstation for manipulating broadcast-quality video is no big deal anymore. But when the cost in U.S.A. is only \$1595, it is a big deal. If you had to separately buy all the equipment to do everything that Video Toaster can do, you'd wish Ted Turner was your daddy.

What Will The Toaster Do?

In a nutshell, here's what a home videographer can do with the Video Toaster:

- Switch between up to four synchronized, time-based corrected video sources, using digital effects similar to those on TV shows.
- Key one video image over another, provided the top image is shot under certain lighting conditions
- Digitize scenes from a video camera or a time-base corrected VCR.
- Access preset and user-designed digital effects.
- Create network-quality titles and realistic two-and-three-dimensional graphics.

Is The Toaster Hot? - Some Industry Quotes

To answer this we include one quote from Video Magazine

"Is the Toaster hot? Yes. Will we use it for every video we make now? Yes. Its almost unbelievable performance makes us believe (and hope) it will be the critical link in the marriage of home video and home computer."

And one quote from Amazing

Computing.

"NewTek's Video Toaster was a hit at Comdex. Those staid IBM types had never seen real video at a real price. Oh, sure, last year IBM showed some poorly digitized video at slow frame rates running from an unreleased multikilobuck add-in card, but that looked like a Victrola next to the Toaster."

And finally here is an extract from what *Video Magazine* said under the headline: *A dazzling new Amiga Board brings video editing into the '90s.*

"Newtek's Video Toaster replaces millions of dollars worth of video production equipment, outperforms \$100,000 digital video effects units, lets anyone produce network-quality programs, doesn't work and will never be shipped. At least that's what we heard after NewTek began demonstrating the Toaster last year. But you can expect a flurry of rumors when a small company from Topeka, Kansas, claims it can combine a video switcher with more than 100 digital effects, a character generator, 3-D rendering and animation, a video paintbox and a luminance keyer in one \$1,600 video production device.

The rumors about the Toaster's availability are definitely false - NewTek has been shipping Toasters for months. The question about its performance remain, though, so we decided to put one through the paces. And shortly after we began working with the Toaster, we began experiencing some of our most joyous video moments. We created the slickest graphics and titles yet to emerge from an editing suite we've been assembling in our office, and enjoyed switching and effects capabilities we never thought we'd achieve with such relatively inexpensive equipment."



PC Compatible News

Commodore Expands Business PC Range in Europe

Commodore Business Machines (U.K.) Ltd. has announced a major drive into the business computer market place, with the launch of seven new PCs, which both extends and complements the current PC business range. The range now on offer from Commodore include a laptop, Slim-line and Desktop PCs (286 - 486.)

New Top of the Range 486PC Compatible

Commodore's business range, for the first time, includes a top of the range desktop DT486-25C which includes a monitor. This PC has a high speed powerful processor with 4MB RAM, expandable to 16MB and a 50MB hard disk. Standard features are a 3.5" disk drive, two serial and one parallel interface and four 16-BIT expansion slots. A VGA graphics chip with 256KB memory makes this machine an excellent tool for handling spreadsheets, complex graphics programs, desktop publishing and CAD applications.

For people who require powerful,

high performance machines there is the choice of the upgradable DT386-25NC, DT386-25C and DT486-25C models. The DT386-25C model is of particular interest to the experienced user who has reached the limits of his performance or who wishes to use operating systems such as UNIX or Microsoft's OS/2. There is also the added benefit of 64KB cache memory which speeds up access to the main memory.

New Slimline Portables

The new Slim-line models - SL386SX-16, SL386SX-20 and SL286-16 - being launched have the capability to operate with UNIX, MS-DOS and OS/2. The SL386SX-16 standard configuration includes a 40MB hard disk and a 3.5" disk drive. A 52MB hard disk is included in both the SX386SX-20 and SL286-16 models. Serial and parallel interfaces, five expansion slots, 1MB RAM expandable to 5MB and an optional 5.25" disk drive are standard features on all three models.

New PC35 for AT Sector

Commodore U.K.'s presence in the

business market place was strengthened with the launch of the PC35, at the Business Computing Show.

This latest addition to Commodore's range of personal computers is aimed at small businesses who require the versatility of the PC30, but with increased memory - and which is still within their price range.

The Commodore PC35 has an Intel 286 processor which runs at selectable speeds of 6, 8 and 12MHz. The increased memory to 1MB along with 3 AT and 1 XT expansion slots, results in a powerful memory upgrade path for more intensive applications. Standard features include a 20MB hard disk with 3.5" disk drive, Commodore and Microsoft mouse compatibility, graphic interface and a built-in speaker.

Steve Franklin, manager director of Commodore Business Machines (U.K.) said; "The AT PC market sector is the largest market now. Commodore has always had a strong 286-based product and with the PC35, I feel we have precisely the right balance to ensure our success continues."

EDITORIAL

The Commodore Advantage

With the birth of a major new market with the launch of Commodore CDTV™ Interactive Media it is perhaps time to reflect on the advantages we might have in establishing an industry standard around our product.

At first thought one might be tempted to compare the CDTV Player with the launch of VCR which had its Beta and VHS standard, with VHS eventually becoming the prime standard. Although even there we should note there were large Beta sales for some time and even now other standards have come in with videorecorders.

However this would be wrong. With VCR, the software (i.e. films) was essentially independent of the technical VCR standard. The film is shot, exists and can with very little effort be mass produced on any other VCR format as desired. The viewer is only a passive spectator in the finished process. This also applies to the various musical standards around such as cassettes, records and CD.

This is not the case with CDTV multimedia which is interactive with both the user and within the CDTV player itself. In this respect it is more analogous to the personal computer. Here various standards exist. The IBM PC compatible is one, as is the Apple Macintosh and UNIX. However, Commodore itself has in sheer unit terms been one of the great establishers of standards. The Com-

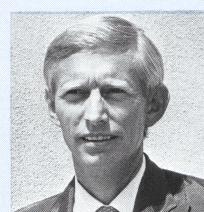
modore VIC 20 was the first computer to sell one million units in a year. This was followed by the Commodore 64 which with over 12 million units sold is still selling in large volumes (see latest financial report on page 16 in this magazine.) The Commodore 64 is the biggest single world standard in home computers. With the Commodore Amiga passing the two million unit mark, Commodore is continuing to demonstrate an ability to create standards. Indeed, in graphic-oriented computers and in Europe, the Amiga is *THE* standard that the user looks to.

The case of Commodore being able to create a standard for CDTV multimedia is further enhanced when one considers that there is an Amiga at the heart of each CDTV Player. While new software has yet to be created to fully utilize the new CDTV medium, there already exists a large base of experienced software houses who currently write for the Amiga. This means that they are familiar with the strengths of this technology, already have some excellent software titles and have a commitment to supporting Amiga technology. Indeed, as the Amiga strengthens the appeal of the CDTV multimedia to users and software writers, the CDTV Player in return adds to the appeal of the Amiga. With over 2 million Amigas in use the Commodore CDTV Player world is not starting from a zero base as may

be the case with potential rivals.

Further with the Amiga becoming almost the *de facto* standard in multimedia computing, it is interesting to note that the best development system for CDTV and multimedia is in fact, in most cases, based on one of the Amiga 2000/3000 range. This again increases the familiarity and decreases the learning curve for the software community.

This does not mean it will necessarily be easy for Commodore to create a major standard for CDTV multimedia but it does mean we do have some considerable strengths. As the magazine *COMPUTING NOW* recently wrote, "If any company can make a concept like CDTV fly, Commodore should be the one." We all at Commodore hope so and are thankful to the software community for the excellent efforts they are putting in to try and do just that. It will be a fascinating few years for Commodore and the industry.



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International News

German Commodore Show Draws 60,000 People

The outstanding strength of Commodore in Germany was amply demonstrated at the Amiga '90 show at the end of last year. With 60,000 people attending it was the largest Amiga show ever. The crowd was jammed in admiring the latest wonders of the Amiga line, including the new 3000UX - the Amiga designed for the UNIX market. The massive crowd was a tribute to the strength of Commodore in this market and to our people there who have achieved this enviable position.

Commodore U.K. Tops Computer Sales in Britain

According to leading Market Research bureau Dataquest, Commodore sold more computers than any other firm in the U.K. last year. Dataquest gave Commodore a 13% share of the market. This was estimated at over 2% more than our nearest rival IBM. Compaq edged into third place with 8.1%, a little ahead of fourth place Atari. Amstrad, Apple and Acorn came fifth, sixth and eighth respectively.

In terms of sales of individual models they placed the Amiga 500 in pole position at almost double its nearest rival. A position that earlier Commodore 64, VIC and PET models have also held in this traditional market stronghold for Commodore. *Well done to all concerned.*

(One little footnote from the U.K. is a report from the Scout association. Apparently one in every two people spends five hours a week playing video games and four hours daily watching television.)

Commodore - the Stars in Bahamian Computer Show

Commodore products featured by the Amoury Company were the stars of the National Bahamian Computer Show held in February. While the recently launched Commodore CDTV Player made its national debut here and was well received, it was not the only new Commodore product star.

The latest in miniature computers, the Commodore C286-LT also made its Bahamian debut and created great interest. Another product, from NewTek, the Video Toaster was also introduced to the market for the first time and caused some considerable stir among show visitors.

Disney U.S.A. Enters the Amiga Software Market

Disney has announced their first offering to the Amiga software community in the form of *The Animation Studio*. Because Disney currently uses the Amiga, *The Animation Studio* is based on many of the very same techniques used in Disney's own animation studios with many of the basic tools found in other packages such as *Deluxe Paint III*. *The Animation Studio* also adds the "onion skin" technique to its animation tools. Also included in the package is sample Disney art to be used in your own animations.

(Definitely not a Mickey Mouse product.)

An Amiga Casino in Australia

An Australian company reportedly plans to open a casino where patrons wager on the outcome of Amiga video games. The Australian maga-

zine *Business Review Weekly* said the TAB (Totalisator Agency Board) which runs a chain of betting shops, has purchased over \$1 million in Commodore equipment which it plans to use in an elaborate gaming parlor in the Rialto Hotel in Melbourne. The center would feature touch-screen terminals and electronically-coded plastic cards, in place of cash, which automatically keep track of gains and losses. About 175 games will be offered and each terminal will allow access to five of them. In a golf game for example, a player could be on his making a hole-in-one. Payouts would increase with the difficulty-level of the shot. A spokesperson estimated that revenues should exceed \$120 million in the first year.

Amiga Chosen for Diagnostic Imaging in Vienna, Austria

National Diagnostic Imaging, based in Vienna, WV/USA, selected the Amiga for reasons of price/performance and graphics capabilities. Their products include various tele-radiology systems for transmitting and archiving radiological images. A line of digital flouro add-on systems are scheduled to be announced. Pending FDA approval, a physician will be able to view your medical results from his home or another hospital. The images, in which color represents body density, are stored with diagnostician comments, while alternate views are at the fingertips of the medical community.

"The Amiga was designed from the ground up as a graphics machine and is well suited for this application," says Michael Wood, NDI.



International News

Experience an Amiga Flight Simulator in the U.S.A.

OK, just for fun . . remember the game Battletech? Well, imagine not only playing, but also actually experiencing a cockpit simulator with a surrounding environment. It's networked for team play in a fantasy world of military flight simulation.

TTR Development, of Madison, WI/USQA, has developed a new genre of entertainment attraction called Battletech Center. Participants can suit up and engage in mock battles using Amiga-based cockpit options.

The lobby area, combat information systems, embarkation hall and launch areas inhabit five thousand square feet of space. The lobby is decorated as the war room with a giant starship with video monitors broadcasting fictitious newscasts from the future, cockpit instructions and views of game in progress. An uniformed staff presides.

The U.S. Department of the Army is evaluating the system for training purposes. TTR is developing other environments as well.

Commodore Road Show in Poland

During the course of November Commodore Electronics Limited held in association with its trading partners, *Baltona, Fancy Electronics* and distinguished members of *Fundacja Edukacji Technologicznej* a marvelous exhibition travelling to several cities in Poland. The show provided the benefits of Commodore's present products in an open travelling format of applications and professional seminars. Visiting Warsaw, John Payne, Technical Manager for CEL, presented demonstrations on Desktop Video, Desktop Publishing, and introduced our new C286 LT to the Polish markets. "These shows provide a window of opportunities and contribute

to our sales. We are already planning another Commodore Roadshow for the new year," remarked Mr. Gajewski, General Manager of the *Fundacja Edukacji Technologicznej* Poland, who wishes to thank Al Duncan and his team for the determination of efforts to make this Roadshow in Poland a success.

Commodore Christmas in Czechoslovakia

Commodore Electronics Limited and their recently established trading partners in Czechoslovakia, Testech Ltd, are working together to build the home, education, business and government markets in Czechoslovakia. Commodore already has an extraordinary brand recognition amongst so many first time computer users in Eastern Europe, and is the envy of many other industry organizations. Commodore also put comparable levels of effort and investment into Czechoslovakia, with an exciting holiday season media campaign, a Commodore Christmas Show, training programs for our Professional products, and development of distribution channels for our corporate business, education, and government markets in Czechoslovakia.

New Zealand Export Award

The outstanding features of the Commodore Amiga 500 have helped Auckland's Target Computers win the inaugural Commodore International Export Marketing Award.

Presented to Target by the Associate Minister of External Relations and Trade, Ralph Maxwell, it recognizes the company's development of *Colour Vision*, a color decorating program now earning thousands of export dollars internationally.

"In making the award, we recognize the technical excellence Target displayed in developing this innovative software, and its sales success in international markets," said a Commodore New Zealand spokesman.

"This world-wide success is further recognition of New Zealanders' innovativeness and ability to win international markets - confirmation a country's size does not limit the potential or creativity of its people," he added.

One American store now using Colour Vision has had to extend its hours to cater for the demands of painters and decorators wanting their customers to select final color schemes before even one can of paint is bought.

Amiga Helps TV Producer in Russia

Billi Hanley, Executive Producer for news and public programming at KTCA-TV (Minnesota/USA) found a way to cut through the "red tape" of the Soviet Union's bureaucratic system - using his Amiga.

Hanley visited the USSR to prepare segments for a documentary series on Soviet Television. The key to their success at getting an inside look at Russia's state-run television industry has been the ability to present their paperwork to Soviet officials and bureaucrats.

They used the public-domain file Moscow font, an Amiga screen-font representation the Cyrillic alphabet with wordprocessors and paint programs to create documents and label illustrations in Russian.

These attractive documents employed multiple font sizes and graphics, giving them a certain novelty effect which definitely got them noticed.



Canadian News

Canadian World of Commodore a Great Success

Once again the Canadian "World of Commodore" show in December was an outstanding success. With over 50 exhibitors and 32,000 attendees this annual "Commodore only" event proved to be the biggest North American event of the year.

Seminars Prove Popular

With a full curriculum of seminars and self-help clinics, as well as a schedule of special product demonstrations held throughout the three-day event, WOCA provided the attendees with a powerful exhibition. Dealer sales were strong, with many items having sold out by the middle of the second day of the show. Commodore Business Machines established an on-site warehouse to keep dealers stocked with Amigas. It worked. One dealer sold 72 Amigas in just the first two days.

The show began with a press breakfast on the first day of the event. After a few short remarks by Commodore Canada's departing President James Dionne and an introduction of the new President, James McWhinnie, the meeting was moved to Commodore's large exhibition area on the show floor. Nolan Bushnell, General Manager of the Consumer Products Division at CBM demonstrated CDTV for the first time to a large audience. Commodore Canada used WOCA to publicly announce and demonstrate the capabilities of CDTV. Over the next few days, Commodore personnel demonstrated CDTV and answered questions from interested attendees.

Extensive Software Demonstrated

Gold Disk demonstrated Show-Maker and the rest of their full line of Amiga products, while quietly showing a new software product, HyperBook, clearly aimed at the hypermedia and cardstack market for the Amiga. HyperBook is a hypertext product with extensive ARexx contents.

Lake Forest Logic's new MacroPaint was available for the first time at WOCA. This new high-resolution paint system is a real eye-catcher. MacroPaint's 4096-color displays drew more than a few people to their booth.

Soft-Logic announced Page-Stream.

Spirit Technology announced BYTE 'N' BACK as the world's fastest hard drive backup utility.

TTR Development began shipping what promises to be a long list of new and diverse software. Workbench Management System V2.0, the newest update to their popular WMS, contains eight built-in applications, an unlimited amount of programmable buttons, quick access time, and full Workbench 2.0 compatibility.

For children, TTR created the educational game Memory Challenge which requires memory skills in matching squares to uncover a puzzle beneath. Memory Challenge utilizes the Amiga's speech capabilities to help children learn by editing the reward files and creating their own speech statements.

TTR continued with the announcement of the Teacher's Toolkit, which is a system for educators to manage time and students. This grade book system allows a teacher to make changes, keep notes,

manipulate data, create graphs and more, while also providing the teacher with a built-in lesson planner.

In the game department, TTR released Brigade, a real-time war simulation that does not wait for you to make your move.

TTR's most important advancement for Amiga users with disk drives was MRBackup Professional. Backups are permitted to floppy, hard drive, SCSI streaming tape, virtual file, etc. MRBackup will work with your existing SCSI controller and most SCSI streaming tape drives.

In the graphics area, Walt Disney Computer Software demonstrated animation techniques with their new Animation Studio. New Horizons continued to demonstrate the features and answer questions regarding their new structured drawing program, Graphic Designer.

Developer Conference

On the first night of the exposition, Commodore presented a special developers conference to keep developers current on the software tools now available through CATS. Jeff Scherb and Gail Wellington were present to introduce the assembled developers to the new products CBM is making available.

Carolyn Scheppner was superb as she deftly went through the large amount of development tools she has been able to collect and distribute through the CATS program.



Marketing News

Electronic Gadgets in the American Home

With the advent of the new CDTV market being pioneered by Commodore it is interesting to take a look at the penetration of other popular electronic products in the home. The source of this information is the Electronic Industries Association (EIA). The EIA estimates that the three product areas of most interest to us, the Home Computer, Video Game software and Compact Disc player all have penetrations of over 20% of homes at 27%, 27% and 22% respectively...we will be delighted to see a day when the penetration of CDTV matches these levels.

TV	98%
Home Radio	98%
Color TV	96%
Audio System	92%
VCR	69%
Compact Audio System	60%
Monochrome TV	56%
Prerecorded Videocassette	53%
Component Audio System	52%
Telephone Answering Device	35%
Cordless Telephone	28%
Video Game Software	27%
Home Computer	27%
Home Compact Disc Player	22%
Color TV (stereo)	21%
Home Security System	15%
Camcorder	11%
Projection TV	6%
LCD TV	4%
Home Satellite Earth Station	3%

Source: EIA

Growth of the Laptop Computer Market

The laptop sector is now the fastest growing part of the U.S. computer market and a sector we have recently entered. According to a recent survey in *Business Week* it stood at 570,000 units in 1989 but will have grown to 1.8 million by 1992, and 2.6 million by 1993.

Growth of the Laptop Computer Market



Source: Business Week

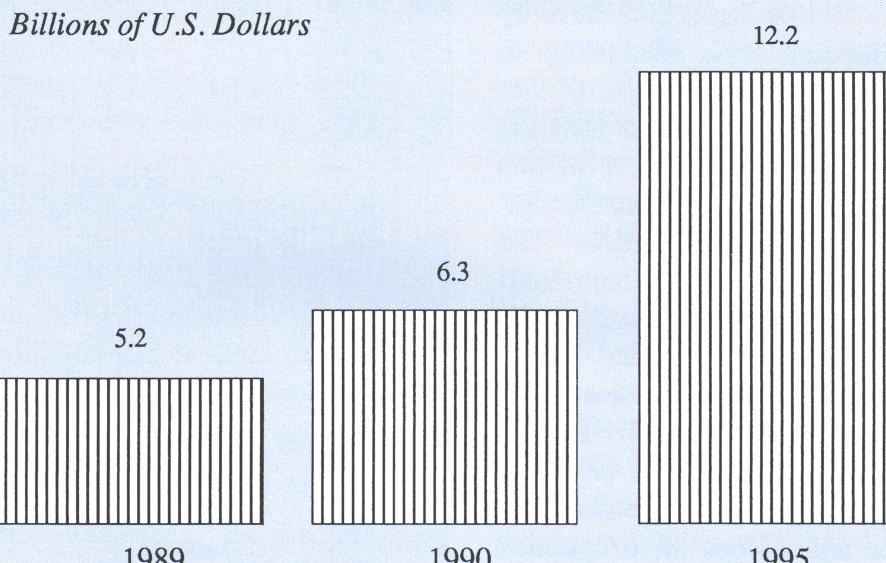


Marketing News

The Desktop Presentations Industry

With the Commodore Amiga making an increasing presence felt in the Desktop presentation market we take a look at some recent industry estimates. According to New Media Research Inc. the market is growing rapidly from U.S. \$5.2 billion in 1989 to U.S. \$12.2 billion in 1995. These estimates are for worldwide revenues. We hope Commodore Amiga will continue to take an increasing share of this extensive market for which it is becoming ever more suited with the growth of the range, software and peripherals. Perhaps the Amiga is somewhat analogous to the way microcomputers have bitten into the traditional computer market for minis and mainframes.

Desktop-Presentations Industry Worldwide Revenue Estimates



Source: New Media Research Inc.

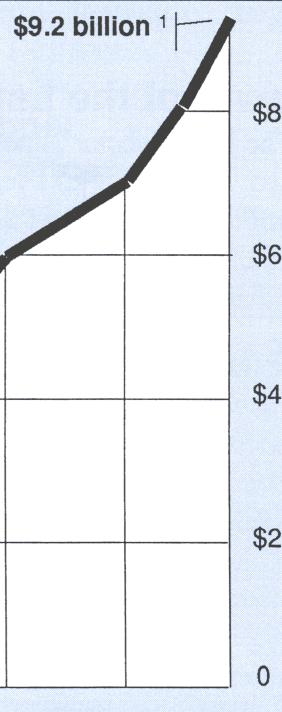
Growth in the Workstation Market

Another market where the Amiga range is making increasing inroads is the workstation market. Once again, according to a survey by Dataquest, this is a large and expanding market. Estimated worldwide revenues were \$942 million in 1985 but were estimated to have grown to as much as \$9.2 billion by the end of this year.

Workstation Revenue Growth

Revenue worldwide

\$942 million



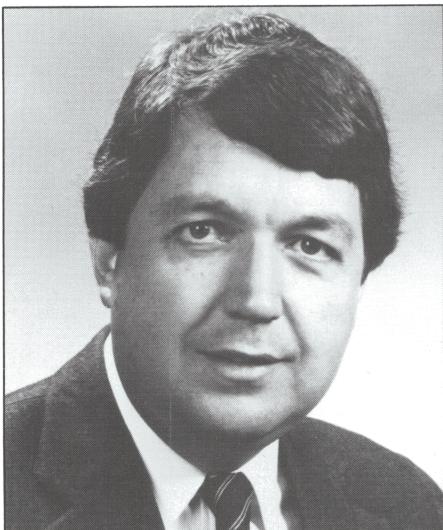
1 - Projection
Source: Dataquest Inc.



People News

Jim Dionne Appointed General Manager of Commodore U.S.A.

In January Commodore International announced the appointment of Commodore veteran Jim Dionne as General Manager of the U.S.A. Sales company. He was previously General Manager of our successful Canadian operation.

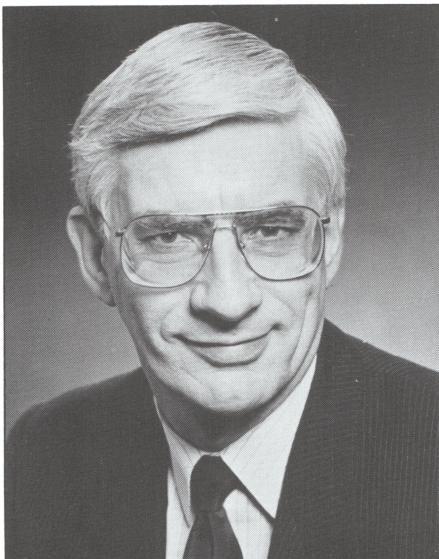


Jim Dionne first joined Commodore in 1978 and has since this time held a number of positions including Vice President Marketing - U.S. operations, General Manager - Latin America operations, and most recently President and General Manager - Canadian operations. Jim Dionne brings with him a wealth of experience of Commodore, of North and South American Marketing operations and of our particular product markets. We wish Jim every success in our important U.S.A. market, an area in which he is well experienced and qualified.

James McWhinnie Appointed President and General Manager of Canada

As the newly appointed President and General Manager of Commodore Business Machines Ltd., Jim McWhinnie is responsible for all sales, marketing, and distribution activities in Canada.

Mr. McWhinnie is back with Commodore after a three year stint as Vice President Finance with Cooper Canada, a manufacturer of sporting goods. He was the Executive Vice President Finance and Operations with Commodore from 1983 to 1987 and has a depth of knowledge in the computer and electronics markets.



Born in Glasgow, Scotland, Mr. McWhinnie became a C.M.A. in 1968 and earned his M.B.A. from Toronto's York University in 1975. He has held executive positions with a number of companies including Cooper, Commodore, Leigh Instruments, Thomas Lipton and Warner Lambert.

A Short Profile of Gail Wellington

As Director of Special Projects, Commodore International, Ltd., Wellington reports to Medhi Ali, president of the parent corporation. She has been actively working on the development of new hardware products and related applications software.

Wellington joined Commodore in June 1981, to write user manuals for application software. Within a year she was made Editor and then Software Manager for Commodore's U.K. subsidiary. She later transferred to Commodore Electronics Trade Company, also based in the U.K.

In April of 1985 Wellington took a six-month assignment to assist in the launch of the Amiga computer. Based in California, she was the liaison between the development team in Los Gatos and the Commodore Sales/Marketing people on the east coast.

Upon returning to Europe, Wellington was instrumental in the launch of the Amiga. She organized the first Amiga European Developers Conference and coordinated the activities of the country support managers, product introduction and developer support programs.



In October 1986 she returned to the U.S.A. to take the position of worldwide Amiga Product Manager. One year later Wellington was promoted to General Manager, Commodore Applications and Technical Support. In this position she had responsibility for all worldwide developer activities. Her objective was to ensure the successful sale of Commodore proprietary products by creating the availability of quality applications software and third-party hardware. This group, known as CATS, consists of technical, administrative, marketing and evangelical staff.

Wellington studied mechanical engineering at Northeastern University in Boston, where she received her B.S. degree. Prior to joining Commodore, Wellington held positions with Raytheon, Adamation and Honeywell.



Financial News

Commodore Reports Increase in Sales and Earnings for Third Fiscal Quarter

Commodore International Limited reported \$10.6 million, or \$0.32 per share in income before extraordinary item on sales of \$246.3 million for the third fiscal quarter ended March 31, 1991. This represents a very substantial increase in earnings and a 16% increase in sales compared to income before extraordinary item of \$0.2 million, or \$0.01 per share, on sales of \$213.2 million in the year-ago quarter. An extraordinary charge of \$9.2 million, or \$0.28 per share relating to a previously announced court settlement of litigation was recorded in the quarter, resulting in net income of \$1.4 million, or \$0.04 per share.

For the nine months ended March 31, 1991, income before extraordinary item increased ten-fold to \$54.1 million, or \$1.65 per share compared with \$5.0 million, or \$0.16 per share in the prior year. Sales increased 21% to \$830.7 million, compared with \$689.2 million in the year-ago period. Net income for the nine months increased nine-fold to \$44.9 million, or \$1.37 per share.

Irving Gould, Chairman and Chief Executive Officer stated: "We are pleased with the continuing sales growth of our European operations, which accounted for more than 85% of total sales for the quarter."

Every product line contributed to revenue growth in the quarter. Unit sales of Amiga computers increased 30% while the C64 product line registered unit growth of 48%, largely due to expanded sales in new markets. The PC product line also demonstrated strong revenue growth, reflecting substantial increases in sales of the new range of professional products.

For the March quarter gross profit increased 21% due to higher revenues and favorable currency effects. Operating expenses were tightly controlled, increasing by only 4% compared to the year-ago period.

Mr Gould concluded: "We are encouraged by the strong performance of all our product lines this quarter. Commodore's range of products is now being enhanced with the launch of CDTV, an innovative multimedia product which represents a major potential opportunity in the consumer market."

Commodore International Limited and Subsidiaries Condensed Consolidated Statement of Operations (Unaudited) (\$000's)

	Three Months Ended March 31, 1991	1990	Six Months Ended March 31, 1991	1990
Net Sales	\$246,300	\$213,200	\$830,700	\$689,200
Cost of Sales	166,600	147,300	552,300	482,000
Gross Profit	79,700	65,900	278,400	207,200
Operating Expenses	65,300	62,500	205,100	189,500
Operating Income	14,400	3,400	73,300	17,700
Interest Expense, Net	3,100	2,800	12,000	9,500
Other Expense	400	400	4,400	2,700
Income Before Income Taxes	10,900	200	56,900	5,500
Provision for Income Taxes	300		2,800	500
Income Before Extraordinary Item	10,600	200	54,100	5,000
Extraordinary Item (A)	(9,200)	---	(9,200)	---
Net Income	1,400	200	\$ 44,900	\$5,000
Earnings Per Share:				
Income Before Extraordinary Item	\$.32	\$.01	\$ 1.65	\$.16
Extraordinary Item (A)	(.28)	---	(.28)	---
Net Income	\$.04	\$.01	\$ 1.37	\$.16
Average Shares Outstanding	33,586,000	32,455,000	32,847,000	32,372,000

(A) Represents court settlement of litigation.

Commodore International Limited and Subsidiaries Condensed Consolidated Balance Sheets (Unaudited) (000's)

	March 31, 1991	March 31, 1990
Cash and Investments	\$101,300	\$120,400
Accounts Receivable, Net	221,300	201,900
Inventories	245,300	245,300
Other Current Assets	8,800	7,900
Total Current Assets	576,700	575,500
Other Assets	91,400	86,200
	\$668,100	\$661,700
Current Debt (A)	99,800	\$34,100
Other Current Liabilities	195,200	217,100
Total Current Liabilities	295,000	251,200
Long-Term Debt and Other	72,700	156,000
Shareholder's Equity	300,400	254,500
(A) Includes reclassification of \$59.5 million long-term debt.	\$668,100	\$661,700

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